STATE OF CALIFORNIA • NATURAL RESOURCES AGENCY Gavin Newson, Governor
DEPARTMENT OF FISH AND WILDLIFE Charlton H. Bonham, Director

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July 18, 2023

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Subject: California Department of Fish and Wildlife Comments on the Draft Environmental Impact Report for the I-5 Managed Lanes Project; SCH No. 2022050172

Dear Mr. Phung:

The California Department of Fish and Wildlife (CDFW) has reviewed the Draft Environmental Impact Report (DEIR) for the I-5 Managed Lanes Project (Project). The California Department of Transportation (Caltrans) is the lead agency preparing a DEIR pursuant to the California Environmental Quality Act (CEQA; Pub. Resources Code, § 21000 et. seq.) with the purpose of informing decision-makers and the public regarding potential environmental effects related to the Project. Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW's Role

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. [Fish & G. Code, §§ 711.7, subdivision (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines, § 15386, subdivision (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental

review efforts, focusing specifically on projects and related activities that have the potential to adversely affect state fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code, including lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take", as defined by State law, of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), or state-listed rare plant pursuant to the Native Plant Protection Act (NPPA; Fish and G. Code, §1900 et seq.) authorization as provided by the applicable Fish and Game Code will be required.

Project Description and Summary

Objective: Caltrans (District 12), is proposing managed lanes (ML) improvements in both directions on I-5 from Red Hill Avenue (Post Mile [PM] 28.9) to 0.5 mile north of the Orange County/Los Angeles (OC/LA) County line (PM 44.4). The Project will occur in the cities of Irvine, Tustin, Santa Ana, Orange, Anaheim, Fullerton, Buena Park, La Mirada, and Santa Fe Springs. The improvements would modify the existing High Occupancy Vehicle (HOV) lanes within the proposed Project limits to address operational deficiencies. The purpose of this Project is to improve the overall movement of people and goods along this section of I-5.

The need, or deficiency, of the Project is the existing I-5 HOV lanes between Red Hill Avenue and the OC/LA County line. This segment of I-5 has HOV lane degradation that does not meet federal performance standards and experiences demand that exceeds existing capacity.

Four alternatives, one no-build alternative (Alternative 1) and three build alternatives (Alternatives 2, 3, and 4), are under consideration and are described below.

Alternative 1 – No Build

Alternative 1 (the no-build alternative) does not include improvements to the existing lane configurations for I-5 and does not propose any additional roadway improvements.

Alternative 2 – Modify Existing HOV 2+ Lanes to HOV 3+ Lanes

Alternative 2 would maintain the existing lane configurations of I-5 with a modification of the minimum HOV-lane occupancy requirement from two-plus (2+) to three-plus (3+) passengers within the current HOV system, in each direction, between Red Hill Avenue and the OC/LA County line. Under this alternative, no additional roadway improvements would occur. Two proposed park-and-ride facilities are being evaluated as part of Alternative 2 and would be constructed within the existing freeway right-of-way (ROW). Sign replacement and pavement delineation would also be implemented to meet the latest California Manual on Uniform Traffic Control Devices (CA MUTCD) standards.

No staging impacts are anticipated under this alternative. Staging is expected to occur within the mainline of the highway and is limited to sign replacements and pavement delineations. Construction staging is anticipated for the development of the park-and-ride facilities to minimize impacts to existing traffic. Staging plans are currently being developed. Should Alternative 2 be selected as the preferred alternative, detailed staging plans would be developed during final design.

Alternative 3 – Convert Existing HOV Lanes to Express Lanes

Alternative 3 would convert the existing HOV lane to an Express Lane (EL) in each direction between Red Hill Avenue and SR-55; convert two existing HOV lanes to ELs in each direction between SR-55 and SR-57; and convert the existing HOV lane to an EL in each direction from SR-57 to the OC/LA County line. The typical lane cross-section consists of a 12-foot (ft) wide EL, a 2 – 4 ft buffer, 12 ft wide general-purpose (GP) lanes, 12 ft wide auxiliary lanes, a 4 – 26 ft wide inside shoulder, and a 10 ft wide outside shoulder. One 12 ft weave lane is proposed at locations of ingress or egress. Two proposed park and-ride facilities are being evaluated as part of Alternative 3 and would be constructed within the existing freeway ROW. Sign replacement and pavement delineation would also be implemented to meet the latest CA MUTCD standards.

Alternative 3 would impact several existing ramps. For the majority of locations, physical modifications of the ramp geometry will not be required where the HOV connectors would be converted to EL Connectors; however, replacement of signage and the addition of tolling equipment would be required. The incorporation of weave lanes would require physical modifications of ramp geometry where the HOV connectors would be converted to EL Connectors at the northbound Gene Autry Way off-ramp, northbound Disney Way off-ramp,

southbound Gene Autry Way off-ramp, and southbound Disneyland Drive off-ramp.

Alternative 3 would not create new structures (e.g., bridges) but would impact one existing retaining wall to accommodate widening the mainline to avoid ROW acquisition. It is anticipated that Alternative 3 would be designed and constructed in separate phases to facilitate Project delivery based on available funding. Each phase would include construction staging to minimize impacts to existing traffic. Staging plans are currently being developed. Should Alternative 3 be selected as the preferred alternative, detailed staging plans would be developed during final design.

Alternative 4 – Convert Existing HOV Lanes to Express Lanes and Construct Additional Express Lanes

Alternative 4 would convert the existing HOV lane to an EL in each direction between Red Hill Avenue and SR-55; convert two existing HOV lanes to ELs in each direction between SR-55 and SR-57; convert the existing HOV lane to an EL in each direction from SR-57 to the OC/LA County line; and construct an additional EL in each direction between SR-57 and SR-91. The proposed lane dimensions, potential park-and-ride facilities, and signage/lane delineation upgrades are consistent with Alternative 3.

Alternative 4 would impact some existing ramps within the proposed Project limits. In general, some of the existing ramps would be shifted to accommodate outside widening. Alternative 4 is not anticipated to impact system interchanges within the proposed Project limits. Within the proposed Project limits, ramp metering is incorporated into the existing local interchange on-ramps, except at the S. Anaheim Boulevard northbound on-ramp. Where ramp improvements affect ramp metering, any ramp metering equipment would be re-established. Existing ramp meters and equipment would be reused where possible. Alternative 4 would not create new structures (e.g., bridges) but would impact existing retaining walls and create a new retaining wall. Retaining walls would be provided, where required, to minimize and avoid ROW acquisition.

Staging plans are currently being developed. Should Alternative 4 be selected as the Preferred Alternative, detailed staging plans would be developed during final design. Underground and above-ground utility conflicts are anticipated within the proposed Project limits. Positive locations would be performed for underground utilities in the proposed Project vicinity that may be in close proximity to or conflict with proposed improvements (as determined from as-

built plans and utility company records). Electrical tower relocation or addition is not anticipated for the existing overhead electrical lines.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist Caltrans in adequately identifying, avoiding, minimizing, and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. CDFW recommends the measures or revisions below be included in a science-based monitoring program that contains adaptive management strategies as part of the Project's CEQA mitigation, monitoring and reporting program (Pub. Resources Code, § 21081.6; CEQA Guidelines, § 15097).

Project Description and Related Impact Shortcoming

Comment #1: Fish Passage Assessment

Issue #1: CDFW is concerned that significant impacts to fish passage were not adequately assessed.

Issue #2: CDFW is concerned that California Streets and Highways Code, section 156.3 (also referred to as SB-857) requirements have not been sufficiently met.

Issue #3: CDFW is concerned that Fish and Game Code, section 5901 may not be sufficiently addressed. Fish and Game Code, section 5901 prohibits the construction or maintenance of any structure that prevents or impedes fish passage, pursuant to the Fish and Game code definition of "fish."

Specific Impact: Caltrans' stated the following in the Project DEIR, "[s]ince this Project will only temporarily affect the Santa Ana River, which historically supported anadromous fish, a fish passage assessment or detailed survey is not warranted or discussed further." The Project limits include crossings over the Santa Ana River and Santiago Creek, which meets the Santa Ana River approximately one stream mile west of the I-5 crossing. The Santa Ana River and Santiago Creek are historical southern California steelhead trout [*Oncorhynchus mykiss*; CESA-candidate listed species]) streams (Becker and Reining 2008). The Project area also includes crossings at Carbon Creek, Fullerton Creek, and Coyote Creek.

According to California Streets and Highways Code, section 156.3, if a project affects a crossing on a stream where anadromous fish are, or historically were

found, Caltrans must complete an assessment of potential barriers to fish passage prior to initiating Project design. Caltrans must also submit the assessment to CDFW. If it is determined that a current or future structure does or would block fish passage, the project is required to remediate the blockage. There is no distinction between temporary or permanent impacts. There is also no threshold of significance required to trigger California Streets and Highways Code, section 156.3. Additionally, Fish and Game Code, section 5901 prohibits the construction or maintenance of any structure that prevents or impedes fish passage (pursuant to the Fish & G. Code definition of "fish").

The CDFW Passage Assessment Database (PAD) indicates a lack of data for the I-5 Santiago Creek crossing. The PAD also indicates that all other Project-related crossings require a detailed survey to determine potential passage constraints. The Project's DEIR does not include a fish passage assessment for any of the above-mentioned streams. Absent a sufficient fish passage assessment, current fish passage barriers/impediments may remain in place for the foreseeable future. If present, fish passage barriers could perpetuate adverse impacts to fish species (including southern California steelhead trout.

In addition, if the Project will have a substantial adverse effect on fish and wildlife resources, the entity is required to notify CDFW, per Fish and Game Code, section 1600 et seq. CDFW is unlikely to authorize an activity that will create a substantial adverse effect on fish and wildlife resources and is in conflict with other sections of the Fish and Game Code; specifically, section 5901 which prohibits the construction or maintenance of any device that prevents, impedes, or tends to prevent or impede the passing of fish up and downstream. CDFW recommends the structures be modified (as necessary) to allow for passage at varying flows and velocities thus reducing impacts to fish and wildlife resources.

Why Impact Would Occur: Fish passage barriers can disrupt and alter instream flow regimes. Altered/disrupted flow regimes may affect the viability of salmonids, among other native fish, that persist in the affected watershed. Other adverse impacts include:

- Loss of high flows and prolonged low flows, which can be especially detrimental to salmonids (Moyle 2002);
- Reduction of fine sediment downstream, causing streams to become graded or buried (Poff et al. 1997, Bauer et al. 2015);

- Disconnecting channels from floodplains that are important nursery grounds, leading to reductions in reproduction and recruitment (Junk et al. 1989, Sparks 1995, Poff et al. 1997);
- Wash-out and stranding of fish (Cushman 1985);
- Disrupting cues for life cycle events such as spawning, egg hatching, and migration (Montgomery et al. 1983, Jonsson 1991, Naesje et al. 1995);
- Decreasing prey availability (macroinvertebrates) for juvenile salmon (McKay and King 2006) that can then decrease growth rates (Harvey et al. 2006);
- Increasing water temperatures of streams that can slow growth, increase predation risk, and increase susceptibility to disease (Moore and Townsend 1998, Marine and Cech, Jr. 2004); and,
- Dewatering small streams used by juvenile salmon (Richardson et al. 2005).

Evidence Impact would be significant: Existing or future barriers may substantially adversely affect the existing stream pattern, upstream and downstream, of the Project location. Absent appropriate mitigation measures, instream barriers could result in substantial erosion or siltation.

Barriers can also modify flow regimes and reduce the magnitude and frequency of high flows (Poff et al. 1997). They can also degrade water quality and decrease habitat for aquatic species if improperly constructed (Santucci, Jr. et al. 2005). Construction of instream barriers can also prevent fish from completing life cycle events, such as outmigration, and can prevent adults from reaching spawning grounds (Liermann et al. 2012).

Road construction can cause soil erosion and run-off that can transfer sediment into streams (Beschta 1978, Seyedbagheri 1996, Richardson et al. 2001). Road use can supply fine sediments and contaminants to aquatic systems, which decreases water clarity (Gjessing et al. 1984, Reid and Dunne 1984); this can then impact survival and growth of fish (Newcombe and Jensen 1996). Road crossings can act as barriers to salmonids if they are improperly constructed (Furniss et al. 1991).

Artificial lighting can suppress the immune system of fish, resulting in increased pathogen and parasite infections (Leonardi and Klempau 2003, Navara and

Nelson 2007). Artificial lighting can also disrupt feeding patterns of juvenile salmonids (Valdimarsson et al. 1997). Salmonids also use changes in ambient light to guide their migration patterns, which can be disrupted by artificial lighting (Grau et al. 1981).

Certain fish and/or wildlife are reliant upon stream-related ecosystems, which in turn are reliant upon adequate instream flows. CDFW develops flow criteria for watercourses and streams throughout the state for which minimum flow levels are established to ensure the continued viability of fish and wildlife, as required by Public Resources Code, sections 10000-10005 and Fish and Game Code, section 5937.

Recommended Feasible Mitigation Measures:

To address the above issues and help Caltrans address fish passage concerns, CDFW requests Caltrans include the following Mitigation Measures (MM) in the EIR, which are also included in Attachment 1 "Mitigation Monitoring and Reporting Program. Text in bold indicates new Mitigation Measures.

MM-BIO-X1. No work shall occur in the stream during periods of high flow when adult steelhead may be present (approximately January 1st to March 31st) and during periods of receding flows when smolt are likely to be present (approximately March 1st to July 31st) unless permitted by National Marine Fisheries Service (NMFS), and written consultation with CDFW has occurred. CDFW and NMFS shall be contacted prior to start of construction to coordinate additional fish salvage and avoidance measures during or before the permitting phase.

MM-BIO-X2. Any structure placed within a stream where fish may occur shall be designed, constructed, and maintained such that it does not constitute a permanent barrier to upstream or downstream movement of aquatic life including steelhead, or cause an avoidance reaction by fish that impedes their upstream or downstream movement. This includes, but is not limited to, the supply of water at an appropriate depth, temperature, and velocity to facilitate upstream and downstream fish migration. If any aspect of the proposed Project results in a long-term reduction in fish movement, Caltrans shall be responsible for all future activities and expenditures necessary (as determined by CDFW) to secure passage of fish across the structure.

MM-BIO-X3. Caltrans shall ensure that if the project affects a stream crossing on a stream where anadromous fish are, or historically were found, an assessment of potential barriers to fish passage is done prior to commencing Project design. Per California Streets and Highways Code, section 156 et seq., Caltrans shall submit the assessment to CDFW and add it to the CALFISH database. If any structural barrier to passage exists, remediation of the problem shall be designed into the project by Caltrans. New projects shall be constructed so that they do not present a barrier to fish passage. When barriers to fish passage are being addressed, plans and projects shall be developed in consultation with CDFW.

Recommendation #1: CDFW recommends Caltrans implement Fish and Game Code 5901 and the California Streets and Highways Code, section 156 through 156.5 requirements, and work closely with CDFW throughout the Project design, before adoption of the EIR, to ensure compliance with fish passage requirements. CDFW also recommends that the Project Proponent consult with CDFW and the National Oceanic and Atmospheric Administration when considering the biological applicability of fish passage within the Project area. If any other crossings not mentioned here lie within the Project limits and affect fish passage, the above recommendations shall also apply to those streams.

Comment #2: Project Impact to Bats

Issue#1: CDFW is concerned the bat reconnaissance work completed (to date) and proposed is inadequate and that Project activities may have a significant impact to bats. Given the abundant evidence of bat presence, night surveys should be performed to ensure a maternity colony and/or day roosting is not occurring on the structures.

Issue #2: The Natural Environmental Study (NES) of the DEIR is conflicting.

Specific Impact: The DEIR states, "[d]aytime bat habitat assessment surveys were conducted in July and August 2022 throughout the BSA concurrent with the general habitat suitability survey. The probability of bats roosting within select portions of the [Biological Study Area (BSA)] that included bridges and culverts was determined to be high during the bat habitat assessment." The DEIR clearly articulates bat presence on the existing structure. Therefore, the presence of day roosting bats, and potential maternity colony(s), cannot be ruled out until appropriate night surveys have been performed.

The daytime roosting bat survey Caltrans conducted looked for external signs of bat presence but did not include visual inspections inside swallow nests or inside bridge structures that could be supporting bats. Abandoned swallow nests have routinely been documented to host bats, even with swallows still using the bridge to actively nest. In addition, bats have often been found in drain holes comparable to the ones discussed in the DEIR.

Since bats are not typically active during the day, CDFW questions the reliance on solely using a daytime visual survey for structures that very likely supports bat species (to inform the DEIR). At a minimum, dusk exit surveys consistent with the guidelines outlined in the Caltrans Bat Mitigation: A Guide to Developing Feasible and Effective Solutions (Harvey et al. 2019) should be performed prior to adoption of the EIR.

Regarding the conflicting information mentioned in Issue #2, on page 4-22 of the NES, Caltrans states, "[d]irect and permanent impacts would occur underneath [several] bridges where suitable bat-roosting habitat is located." On page 4-23 of the NES, Caltrans stated, "[b]at-roosting habitat is subject to direct impacts from implementation of Alternatives 3 and 4, as construction activities would occur on roadways under or on top of several bridges and would remove several trees, including palm trees, that provide potentially suitable day-roosting and/or night-roosting habitat within the BSA." However, on page 4-24, Caltrans states, "[i]mpacts to the underside of these bridges where bats are likely to roost would not occur as part of Alternatives 3 and 4." CDFW is concerned that conflicting information within the technical studies could lead to insufficient protective measures for bat species that may be impacted by Project activities.

Specific Impact: The DEIR states that several species of bats have the potential to occur onsite; however, acoustic surveys were not conducted prior to the circulation of the DEIR to inform species specific usage of the bridges. Therefore, the DEIR does not adequately disclose the potential for impacts to bats.

Bats in southern California can be active year-round, however, all potential breeding species are most active between March 15 and September 15. Surveys should be conducted at different times of year for at least one year and include at least one survey in the middle of the above dates and at least one in fall/winter during periods of warm weather. Each bat species has unique habitat needs, such as specific gap size of cracks and seasonality, that should be used to formulate appropriate mitigation into the Project CEQA document and to minimize impacts to sensitive bat species. The DEIR should document the presence of any bats to the species level and include species specific mitigation

measures to reduce impacts to below a level of significance, which include providing replacement roosting habitat.

Evidence Impact would be significant: Bats are considered non-game mammals and are afforded protection by State law from take and/or harassment, (Fish and G. Code, § 4150, California Code of Regulations, § 251.1). Several bat species are also considered a species of special concern (SSC) and meet the CEQA definition of rare, threatened, or endangered species (CEQA Guidelines, § 15065). Take of SSC could require a mandatory finding of significance by the Lead Agency, (CEQA Guidelines, § 15065).

Recommended Feasible Mitigation Measures:

To address the above issues and help Caltrans avoid impacts to bats, CDFW requests the Caltrans include the following edits to existing mitigation measures and inclusion of the additional mitigation measures in the DEIR per below (edits are in strikethrough for deleted text and bold for new text), and also included in Attachment 1 "Mitigation Monitoring and Reporting Program".

ANS-4. Night Work Lighting. If night work (i.e., between dusk and dawn) is anticipated within 100 feet of structures where bat roosting is confirmed, night lighting shall be used only in areas of active work and shall be focused on the direct area(s) of work and away from the culvert entrances ~~to the greatest extent practicable~~

ANS-6 Construction Equipment Staging. ~~To the extent practicable, I~~nternal combustion equipment (e.g., generators and vehicles) shall not to be parked or operated beneath or adjacent to the structures **unless a qualified bat biologist confers there is no roosting/hibernating bat colonies within 300 feet** ~~it is required for Project-related work on that structure.~~.

ANS-7 Replacement Lighting Locations. The proposed Project includes the replacement of lighting in various areas. Siting of these lights should avoid overspill into bat roosting **and foraging** sites, and light shields should be installed for lights adjacent to suitable **roosting and** foraging habitat to avoid permanent impacts to roosting and foraging bats.

ANS-12. CDFW recommends bat surveys be conducted by a qualified bat specialist to determine bat presence within the Project and within a 500-foot buffer and analyze the potential significant effects of the proposed

Project on the species (CEQA Guidelines, §15125). CDFW recommends the DEIR include the use of acoustic recognition technology to maximize detection of bats and determine species presence, for disclosure in the CEQA document. To avoid the direct loss of bats that could result from removal of the bridge, swallow nests, trees, rock crevices, structures, that may provide roosting habitat (winter hibernacula, summer, and maternity), CDFW recommends that the following steps be implemented prior to adoption of the DEIR and reconfirmed prior to construction:

1. **Identify the species of bats present on the site;**
2. **Determine how and when these species utilize the site and what specific habitat requirements are necessary ([thermal gradients throughout the year, size of crevices, tree types, location of hibernacula/roost [height, aspect, etc.]);**
3. **Avoid the areas being utilized by bats for hibernacula/roosting; if avoidance is not feasible, a bat specialist should design alternative habitat that is specific to the species of bat being displaced and develop a relocation plan in coordination with CDFW;**
4. **The bat specialist should document all demolition monitoring activities and prepare a summary report to the Lead Agency upon completion of tree/rock disturbance and/or building demolition activities. CDFW requests copies of any reports prepared related to bat surveys (e.g., monitoring, demolition) within two weeks of completion;**
5. **If confirmed occupied or formerly occupied bat roosting/hibernacula and foraging habitat is destroyed, habitat of comparable size, function and quality should be created or preserved and maintained at a nearby suitable undisturbed area. The bat habitat mitigation shall be determined by the bat specialist in consultation with CDFW;**
6. **A bat monitoring plan should be prepared in consultation with CDFW. The bat monitoring plan should include describe proposed mitigation habitat, and include performance standards for the use of replacement roosts/hibernacula by the displaced species, as well as provisions to prevent harassment, predation, and disease of relocated bats; and,**
7. **Annual reports detailing the success of roost replacement and bat relocation should be prepared and submitted to CDFW for**

five years following relocation or until performance standards are met, whichever period is longer.

ANS-13. Prior to the demolition of the current structures, temporary nesting/roosting habitat shall be provided. Nesting structures must be created before the onset of demolition activities and during a period bats are active and able to move to the new roosting habitat.

Comment #3: Impacts to Nesting Birds

Issue: Project activities may have a significant impact on nesting birds.

Specific impacts: Construction during the breeding season could result in the incidental loss of nesting and foraging habitat as well as loss of fertile eggs or nestlings or otherwise lead to nest abandonment in habitat adjacent to or within the Project site.

Why impact would occur: Impacts could result from noise disturbances, increased human activity, increased lighting, fugitive dust, other ground disturbing activities (e.g., staging, access, excavation, grading), and vibrations caused by heavy equipment. Noise from road use, generators, and heavy equipment may disrupt nesting bird mating calls or songs, which could impact reproductive success (Patricelli and Blickley 2006, Halfwerk et al. 2011). Noise has also been shown to reduce the density of nesting birds (Francis et al. 2009), and songbird abundance and density was significantly reduced in areas with high levels of noise (Bayne et al. 2008). Additionally, noise exceeding 70 dB(A) may affect feathers and body growth of young birds (Kleist et al. 2018). Project disturbance activities could result in mortality or injury to nestlings, as well temporary or long-term loss of suitable foraging habitats. Construction during the breeding season of nesting birds could result in the incidental loss of breeding success or otherwise lead to nest abandonment.

The timing of the nesting season varies greatly depending on several factors, such as the bird species, weather conditions in any given year, and long-term climate changes (e.g., drought and warming). CDFW staff have observed that changing climate conditions may result in the nesting bird season occurring earlier and later in the year than historical nesting season dates. CDFW recommends the completion of nesting bird survey regardless of time of year to ensure compliance with all applicable laws pertaining to nesting and to avoid take of nests.

The duration of a pair to build a nest and incubate eggs varies considerably, therefore, CDFW recommends surveying for nesting behavior and/or nests and construction within three days prior to start of Project construction to ensure all nests on site are identified and to avoid take of nests. Without appropriate species-specific avoidance measures, biological construction monitoring may be ineffective for detecting nesting birds. This may result in take of nesting birds. Project ground-disturbing activities such as grading and grubbing may result in habitat destruction, causing the death or injury of adults, juveniles, eggs, or hatchlings. In addition, the Project may remove habitat by eliminating native vegetation that may support essential foraging and breeding habitat.

Evidence impact would be significant: The loss of occupied habitat or reductions in the number of bird species, either directly or indirectly through nest abandonment or reproductive suppression, could constitute a significant impact absent appropriate mitigation. Furthermore, it is the Project proponent's responsibility to avoid take of all nesting birds. Nests of all native bird species are protected under State laws and regulations, including Fish and Game Code, sections 3503, 3503.5, and 3513. Fish and Game Code, section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by Fish and Game Code or any regulation made pursuant thereto. Fish and Game Code, section 3513 makes it unlawful to take or possess any migratory nongame bird except as provided by the rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. § 703 et seq.). Fish and Game Code, section 3503.5 makes it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by Fish and Game Code or any regulation adopted pursuant thereto. These regulations apply anytime nests or eggs exist on the Project site.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #2: To address the above issues and help Caltrans avoid unlawfully taking of nesting birds and eggs, CDFW requests the Caltrans include the following mitigation measures in the DEIR per below (edits are in bold for new text), and also included in Attachment 1 "Mitigation Monitoring and Reporting Program".

PF-ANS-1. A pre-activity field survey shall be conducted prior to the issuance of grading permits for such project to determine if active nests of species protected by the MBTA or the California Fish and Game

Code are present in the construction zone in addition to ongoing monitoring, and if necessary, establishment of minimization measures. The District shall adhere to the following:

1. **The biologist (Designated Biologist) shall be experienced in: identifying local and migratory bird species of special concern; conducting bird surveys using appropriate survey methodology; nesting surveying techniques, recognizing breeding and nesting behaviors, locating nests and breeding territories, and identifying nesting stages and nest success; determining/establishing appropriate avoidance and minimization measures; and monitoring the efficacy of implemented avoidance and minimization measures.**

PF-ANS-2. **Site preparation activities (ground disturbance, construction activities, and/or removal of trees and vegetation) for all Project activities shall be avoided, to the greatest extent possible, during the nesting season of potentially occurring nesting species. Additionally, raptors (birds of prey) are known to begin nest building in January or February. If vegetation clearing is to occur between January 1 and February 15, a nesting raptor survey shall be conducted within the project site, including a 500-foot buffer, no more than three days prior to vegetation removal. If site preparation activities occurs during the nesting/breeding season, Caltrans shall verify that a pre-construction clearance survey for nesting birds should be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The pre-activity field survey shall be conducted by a qualified biologist (as described in PF-ANS-1) prior to the issuance of grading permits for such project to determine if active nests of species protected by the MBTA or the California Fish and Game Code are present in the construction zone in addition to ongoing monitoring, and if necessary, establishment of minimization measures. Caltrans shall adhere to the following:**

1. **Pre-activity field surveys shall be conducted at the appropriate time of day/night, during appropriate weather conditions, no more than 3 days prior to the initiation of Project activities. Surveys shall encompass all suitable areas including trees, shrubs, bare ground, burrows, cavities, and structures. Survey**

duration shall take into consideration the size of the Project site; density, and complexity of the habitat; number of survey participants; survey techniques employed; and shall be sufficient to ensure the data collected is complete and accurate.

2. **Caltrans shall verify that plans, specifications and estimates for the Project include a note requiring a pre-construction nesting survey three days before construction and that any reports, including monitoring reports, are retained on site by the Construction Manager.**

If active nests are not located within the implementing project site, no biological monitor is needed. If an active avian nest is discovered during the pre-construction clearance survey the following measures shall be implemented and documentation of the following shall be retained on site by the Construction Manager.

1. **Construction personnel will be instructed by the biologist on the sensitivity of nest areas.**

2. **The size of the no-disturbance buffer will be determined by the designated biologist immediately based on their best professional judgement and experience and will depend on the level of noise and/or surrounding anthropogenic disturbances, line of sight between the nest and the construction activity, type and duration of construction activity, ambient noise, species habituation, and topographical barriers. These factors will be evaluated on a case-by-case basis when developing buffer distances. A minimum buffer of 500 feet around an active ESA or CESA-listed species or raptor nest, 300 feet around active passerine (perching birds or songbirds), sensitive, or protected bird nests (non-listed), or 1000 feet of sensitive or protected songbird nests. No construction activity shall occur within the buffer area until a qualified biologist determines nesting species have fledged and the nest is no longer active or the nest has failed.**

3. **Limits of construction to avoid an active nest will be established in the field with flagging, fencing, or other appropriate barriers installed under biologist supervision.**

4. **The biologist monitoring construction should be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. The Designated Biologist shall monitor the nest at the onset of project activities, and at the onset of any changes in such project activities (e.g., increase in number or type of equipment, change in equipment usage, etc.) to determine the efficacy of the buffer. If the Designated Biologist determines that such project activities may be causing an adverse reaction, the Designated Biologist shall adjust the buffer accordingly or implement alternative avoidance and minimization measures, such as redirecting or rescheduling construction or erecting sound barriers. All work within these buffers will be halted until the nesting effort is finished (i.e., the juveniles are surviving independent from the nest). The onsite qualified biologist will review and verify compliance with these nesting avoidance buffers and will verify the nesting effort has finished.**

5. **Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur. Upon completion of the survey and nesting bird monitoring, a report shall be prepared and submitted to Caltrans for mitigation monitoring compliance record keeping.**

ADDITIONAL RECOMMENDATIONS

Mitigation and Monitoring Reporting Plan

CDFW recommends updating the DEIR's proposed Biological Resources Mitigation Measures to include mitigation measures recommended in this letter. Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally binding instruments [(Pub. Resources Code, § 21081.6; CEQA Guidelines, § 15126.4(a)(2)]. As such, CDFW has provided comments and recommendations to assist Caltrans in developing mitigation measures that are (1) consistent with CEQA Guidelines section 15126.4; (2) specific; (3) detailed (i.e., responsible party, timing, specific actions, location), and (4) clear for a measure to be fully enforceable and implemented successfully via mitigation, monitoring, and/or reporting program (Pub. Resources Code, § 21081.6; CEQA Guidelines, § 15097). Caltrans is welcome to

coordinate with CDFW to further review and refine the Project's mitigation measures. Per Public Resources Code section 21081.6(a)(1), CDFW has provided Caltrans with a summary of our suggested mitigation measures and recommendations in the form of an attached Draft Mitigation and Monitoring Reporting Plan (MMRP; Attachment 1).

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNNDB field survey form can be filled out and submitted online at the following link: https://wildlife.ca.gov/Data/CNDDB/Submitting-Data. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife resources, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying Project approval to be operative, vested, and final. (California Code of Regulations, tit. 14, § 753.5; Fish and Game Code, § 711.4; Public Resources Code, § 21089).

CONCLUSION

We appreciate the opportunity to comment on the project to assist Caltrans in adequately analyzing and minimizing/mitigating impacts to biological resources. CDFW personnel are available for consultation regarding biological resources and strategies to minimize impacts. CDFW requests an opportunity to review and comment on any response that Caltrans has to our comments and to receive notification of any forthcoming hearing date(s) for the project. Questions regarding this letter and further coordination on these issues should be directed to Baron Barrera, Senior Environmental Scientist (Specialist), at (858) 358 -4114 or Baron.Barrera@wildlife.ca.gov.

Sincerely,

DocuSigned by:
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Attachment 1: Draft Mitigation and Monitoring Reporting Plan.

The California Department of Fish and Wildlife recommends the following language to be incorporated into a future environmental document for the Project.

Biological Resources			
	Mitigation Measure	**Timing**	**Responsible Party**
MM-BIO-1 – Fish Passage	No work shall occur in the stream during periods of high flow when adult steelhead may be present (approximately January 1st to March 31st) and during periods of receding flows when smolt are likely to be present (approximately March 1st to July 31st) unless permitted by National Marine Fisheries Service (NMFS), and written consultation with CDFW has occurred. CDFW and NMFS shall be contacted prior to start of construction to coordinate additional fish salvage and avoidance measures during or before the permitting phase.	Prior to construction	Caltrans
MM-BIO-2 – Fish Passage	Any structure placed within a stream where fish may occur shall be designed, constructed, and maintained such that it does not constitute a permanent barrier to upstream or downstream movement of aquatic life including steelhead, or cause an avoidance reaction by fish that impedes their upstream or downstream movement. This includes, but is not limited to, the supply of water at an appropriate depth, temperature, and velocity to facilitate upstream and downstream fish migration. If any aspect of the proposed Project results in a long-term reduction in fish movement, Caltrans shall be responsible for all future activities and expenditures necessary (as determined by CDFW) to secure passage of fish across the structure.	Prior to Finalizing the EIR	Caltrans

MM-BIO-3 – Fish Passage	Caltrans shall ensure that if the project affects a stream crossing on a stream where anadromous fish are, or historically were found, an assessment of potential barriers to fish passage is done prior to commencing Project design. Per California Streets and Highways Code, section 156 et seq., Caltrans shall submit the assessment to CDFW and add it to the CALFISH database. If any structural barrier to passage exists, remediation of the problem shall be designed into the project by Caltrans. New projects shall be constructed so that they do not present a barrier to fish passage. When barriers to fish passage are being addressed, plans and projects shall be developed in consultation with CDFW.	Prior to Finalizing the EIR	Caltrans
Rec #1 – Fish Passage	CDFW recommends Caltrans implement Fish and Game Code 5901 and the CSHC, section 156 through 156.5 requirements, and work closely with CDFW throughout the Project design to ensure compliance with fish passage requirements. CDFW also recommends that the Project Proponent consult with CDFW and NOAA when considering the biological applicability of fish passage within the Project area. If any other crossings not mentioned here lie within the Project limits and affect fish passage, the above recommendations shall also apply to those streams.	Prior to Finalizing the EIR	Caltrans
ANS-4.	Night Work Lighting. If night work (i.e., between dusk and dawn) is anticipated within 100 feet of structures where bat roosting is confirmed, night lighting shall be used only in areas of active work and shall be focused on the direct area(s) of work and away from the culvert entrances.	During Construction	Caltrans

ANS-6	Construction Equipment Staging. Internal combustion equipment (e.g., generators and vehicles) shall not to be parked or operated beneath or adjacent to the structures unless a qualified bat biologist confers there is no roosting/hibernating bat colonies within 300 feet.	Before Construction	Caltrans
ANS-7	Replacement Lighting Locations. The proposed Project includes the replacement of lighting in various areas. Siting of these lights should avoid overspill into bat roosting and foraging sites, and light shields should be installed for lights adjacent to suitable foraging and roosting habitat to avoid permanent impacts to roosting and foraging bats	Before Construction	Caltrans
ANS-12	CDFW recommends bat surveys be conducted by a qualified bat specialist to determine bat presence within the Project and within a 500-foot buffer and analyze the potential significant effects of the proposed Project on the species (CEQA Guidelines, §15125). CDFW recommends the DEIR include the use of acoustic recognition technology to maximize detection of bats and determine species presence, for disclosure in the CEQA document. To avoid the direct loss of bats that could result from removal of the bridge, swallow nests, trees, rock crevices, structures, that may provide roosting habitat (winter hibernacula, summer, and maternity), CDFW recommends that the following steps be implemented prior to adoption of the DEIR and reconfirmed prior to construction: 1. Identify the species of bats present on the site; 2. Determine how and when these species utilize the site and what specific habitat requirements are necessary ([thermal gradients throughout the year, size of	Prior to Finalizing the EIR and Reconfirmed Prior to Construction	Caltrans

	crevices, tree types, location of hibernacula/roost [height, aspect, etc.]); 3. Avoid the areas being utilized by bats for hibernacula/roosting; if avoidance is not feasible, a bat specialist should design alternative habitat that is specific to the species of bat being displaced and develop a relocation plan in coordination with CDFW; 4. The bat specialist should document all demolition monitoring activities and prepare a summary report to the Lead Agency upon completion of tree/rock disturbance and/or building demolition activities. CDFW requests copies of any reports prepared related to bat surveys (e.g., monitoring, demolition) within two weeks of completion; 5. If confirmed occupied or formerly occupied bat roosting/hibernacula and foraging habitat is destroyed, habitat of comparable size, function and quality should be created or preserved and maintained at a nearby suitable undisturbed area. The bat habitat mitigation shall be determined by the bat specialist in consultation with CDFW; 6. A bat monitoring plan should be prepared in consultation with CDFW. The bat monitoring plan should include describe proposed mitigation habitat, and include performance standards for the use of replacement roosts/hibernacula by the displaced species, as well as provisions to prevent harassment, predation, and disease of relocated bats; and, 7. Annual reports detailing the success of roost replacement and bat relocation should be prepared and submitted to CDFW for five years following relocation or until performance standards are met, whichever period is longer.		

ANS-13	Prior to the demolition of the current structures, temporary nesting/roosting habitat shall be provided. Nesting structures must be created before the onset of demolition activities and during a period bats are active and able to move to the new roosting habitat.	Before Construction	Caltrans
PF-ANS-1 Nesting Birds	A pre-activity field survey shall be conducted prior to the issuance of grading permits for such project to determine if active nests of species protected by the MBTA or the California Fish and Game Code are present in the construction zone in addition to ongoing monitoring, and if necessary, establishment of minimization measures. The District shall adhere to the following: 1. The biologist (Designated Biologist) shall be experienced in: identifying local and migratory bird species of special concern; conducting bird surveys using appropriate survey methodology; nesting surveying techniques, recognizing breeding and nesting behaviors, locating nests and breeding territories, and identifying nesting stages and nest success; determining/establishing appropriate avoidance and minimization measures; and monitoring the efficacy of implemented avoidance and minimization measures.	Prior to and During Construction	Caltrans
PF-ANS-2 Nesting Birds	Site preparation activities (ground disturbance, construction activities, and/or removal of trees and vegetation) for all Project activities shall be avoided, to the greatest extent possible, during the nesting season of potentially occurring nesting species. Additionally, raptors (birds of prey) are known to begin nest building in January or February. If vegetation clearing is to occur between January 1 and February 15, a nesting raptor survey shall be conducted within	Before Construction	Caltrans

	the project site, including a 500-foot buffer, no more than three days prior to vegetation removal. If site preparation activities occurs during the nesting/breeding season, Caltrans shall verify that a pre-construction clearance survey for nesting birds should be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The pre-activity field survey shall be conducted by a qualified biologist (as described in PF-ANS-1) prior to the issuance of grading permits for such project to determine if active nests of species protected by the MBTA or the California Fish and Game Code are present in the construction zone in addition to ongoing monitoring, and if necessary, establishment of minimization measures. Caltrans shall adhere to the following: 1. Pre-activity field surveys shall be conducted at the appropriate time of day/night, during appropriate weather conditions, no more than 3 days prior to the initiation of Project activities. Surveys shall encompass all suitable areas including trees, shrubs, bare ground, burrows, cavities, and structures. Survey duration shall take into consideration the size of the Project site; density, and complexity of the habitat; number of survey participants; survey techniques employed; and shall be sufficient to ensure the data collected is complete and accurate. 2. Caltrans shall verify that plans, specifications and estimates for the Project include a note requiring a pre-construction nesting survey three days before construction and that any reports, including monitoring reports, are retained on site by the Construction Manager.		

	If active nests are not located within the implementing project site, no biological monitor is needed. If an active avian nest is discovered during the pre-construction clearance survey the following measures shall be implemented and documentation of the following shall be retained on site by the Construction Manager. 1. Construction personnel will be instructed by the biologist on the sensitivity of nest areas. 2. The size of the no-disturbance buffer will be determined by the wildlife biologist immediately based on their best professional judgement and experience and will depend on the level of noise and/or surrounding anthropogenic disturbances, line of sight between the nest and the construction activity, type and duration of construction activity, ambient noise, species habituation, and topographical barriers. These factors will be evaluated on a case-by-case basis when developing buffer distances. A minimum buffer of 500 feet around an active listed species or raptor nest, 300 feet around active passerine (perching birds or songbirds), sensitive, or protected bird nests (non-listed), or 1000 feet of sensitive or protected songbird nests. No construction activity shall occur within the buffer area until a qualified biologist determines nesting species have fledged and the nest is no longer active or the nest has failed. 3. Limits of construction to avoid an active nest will be established in the field with flagging, fencing, or other appropriate barriers installed under biologist supervision. 4. The biologist monitoring construction should be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely		

	affected by the construction activity. The Designated Biologist shall monitor the nest at the onset of project activities, and at the onset of any changes in such project activities (e.g., increase in number or type of equipment, change in equipment usage, etc.) to determine the efficacy of the buffer. If the Designated Biologist determines that such project activities may be causing an adverse reaction, the Designated Biologist shall adjust the buffer accordingly or implement alternative avoidance and minimization measures, such as redirecting or rescheduling construction or erecting sound barriers. All work within these buffers will be halted until the nesting effort is finished (i.e., the juveniles are surviving independent from the nest). The onsite qualified biologist will review and verify compliance with these nesting avoidance buffers and will verify the nesting effort has finished. 5. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur. Upon completion of the survey and nesting bird monitoring, a report shall be prepared and submitted to Caltrans for mitigation monitoring compliance record keeping.		